

REMARKS

Claim 3 has been amended to require w to be 2-200 and to require R to be an oxyalkylene group selected from the group consisting of oxyethylene, oxypropylene, oxyisopropylene, and mixtures thereof. Also, claim 22 has been amended to require w to be 2-100, and claim 23 has been amended to require w to be 2-40. Thus, the pending claims require (1) the presence of “multiple” or “poly” alkoxylation groups; and (2) the presence of specific alkoxylation groups. Support for these amendments exists throughout the present specification, including page 3, lines 5-6, and page 4, lines 16-23. (See also, In re Wertheim, copy attached as Tab A). No new matter has been added through these amendments.

Claims 3, 4, 10-12, 18, 19 and 22-37 are currently pending.

The claimed copolymers can be viewed as polyalkoxylation-modified versions of polysilicone-polyamide (“PSPA”) type copolymers. Modifying PSPA-type copolymers by adding sufficient alkoxylation groups to them provides the modified PSPA-type copolymers with emulsification properties. Such polyalkoxylation-modified, emulsifying versions of PSPA-type copolymers are neither taught nor suggested by the prior art.

This difference between the claimed polymers and the prior art polymers is explained in Inventor Lu’s Rule 132 declaration submitted October 11, 2005. The primary difference between the polymers of the present invention and those disclosed in the cited references is that the polymers in the present application possess emulsifying activity: they contain sufficient alkoxylation to provide the polymers with emulsifying activity. (Lu’s Rule 132 declaration, par. 3). In contrast, the polymers in the cited patents and patent applications

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applied against the claims do not possess emulsifying activity. (Lu's Rule 132 declaration, par. 3).

To better reflect this difference, the claims have been amended to require polyalkoxylation: that is, to require that "w" is at least 2. The claims have also been amended to require the presence of specific alkoxylation groups. Because the prior art polymers do not have the required polyalkoxylation or the required alkoxylation groups, they cannot teach or suggest the claimed copolymers.

The Office Action rejected the pending claims under 35 U.S.C. § 102 as anticipated by and/or under 35 U.S.C. § 103 as obvious over, U.S. patent 4,822,852 ("Wittmann").

The Office Action also rejected the pending claims under 35 U.S.C. § 102 as anticipated by, and under the judicially created doctrine of obviousness-type double patenting as obvious over, several patents and patent applications owned by the assignee of the present application. All of these patents/patent applications disclose the same type of polymer (a PSPA-type copolymer). Because all of these rejections involve the same issue (that is, whether the disclosed PSPA-type copolymer anticipates or renders obvious the claimed alkoxylated, emulsifying copolymers), these rejections will be discussed together.

Regarding Wittmann, Wittmann's polymers contain oxygen (O_p), where $p= 0.1$. (See, col. 3, line 13). Thus, Wittmann's polymers do not contain stoichiometric amounts of oxygen for any hypothetical alkoxylation groups, let alone sufficient oxygen for the polyalkoxylation groups required by the present claims. For at least this reason, Wittmann's polymers neither teach nor suggest the claimed invention.

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In this regard, Applicants respectfully submit that the Office Action's reliance on Col. 4, lines 39-56 is misplaced -- this disclosure relates to processes for producing Wittmann's polymers, not the final composition of Wittmann's polymers.

Furthermore, Wittmann neither teaches nor suggests the required alkoxylation groups in sufficient specificity to anticipate or suggest the claimed invention. In other words, Wittmann does not disclose oxyethylene, oxypropylene and/or oxyisopropylene groups with sufficient specificity, particularly given that the value for oxygen in Wittmann's polymers is only 0.1.

Finally, Wittmann neither teaches nor suggests that the required []_z and []_w blocks are present, let alone present in the required ratios. For this additional reason, Wittmann neither teaches nor suggests the claimed invention.

For all of the above reasons, Applicants respectfully submit that Wittmann neither teaches nor suggests the claimed invention.

Regarding the remaining references which disclose PSPA-type copolymers, these references neither teach nor suggest providing PSPA-type copolymers having (1) the required alkoxylation groups; or (2) polyalkoxylation.

In making the rejections based upon PSPA-type copolymers, the Office Action has relied upon the definition of "X," asserting that "X" could theoretically encompass the claimed alkoxylation groups. However, the general definition of "X" in the asserted references does not teach or suggest the presence of the three specified alkoxylation groups in the claims. For at least this reason, the cited references disclosing PSPA-type copolymers cannot teach or suggest the claimed invention.

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Furthermore, the PSPA-type copolymer references do not teach or suggest polyalkoxylation with the required groups in an amount sufficient to provide the polymer with emulsifying activity. That is, nothing in the cited references would motivate one skilled in the art to modify PSPA-type copolymers by providing them with sufficient polyalkylation to provide them with emulsifying activity. For this reason as well, references disclosing PSPA-type copolymers cannot teach or suggest the claimed invention.

Finally, as indicated in Lu's previously submitted Rule 132 declaration, no structure or variable in PSPA-type copolymers corresponds to the required "R" or oxyalkylene group in the claimed copolymers. (Lu's Rule 132 declaration, par. 6).

Significantly, because the polymers in the cited references do not contain an "R" group (meaning that "w" is zero in the claimed formulae), the prior art polymers cannot satisfy the required z/w ratios which are all positive numbers.

This difference between the claimed polymers and the prior art polymers is further highlighted by the fact that the formula (I) polymers can be used as starting materials and combined with oxyalkylene groups to produce the claimed copolymers. (See, the present application at page 5, line 25 et seq.). (Lu's Rule 132 declaration, par. 6). Because the formula (I) polymers can be used as starting materials and combined with oxyalkylene groups to produce the claimed copolymers, it follows that the formula (I) polymers do not contain the claimed "R" or oxyalkylene groups: if the formula (I) polymers and the claimed polymers were truly the same, no need would exist to modify the formula (I) polymers by adding oxyalkylene groups to them to obtain the claimed polymers. (Lu's Rule 132 declaration, par. 6).

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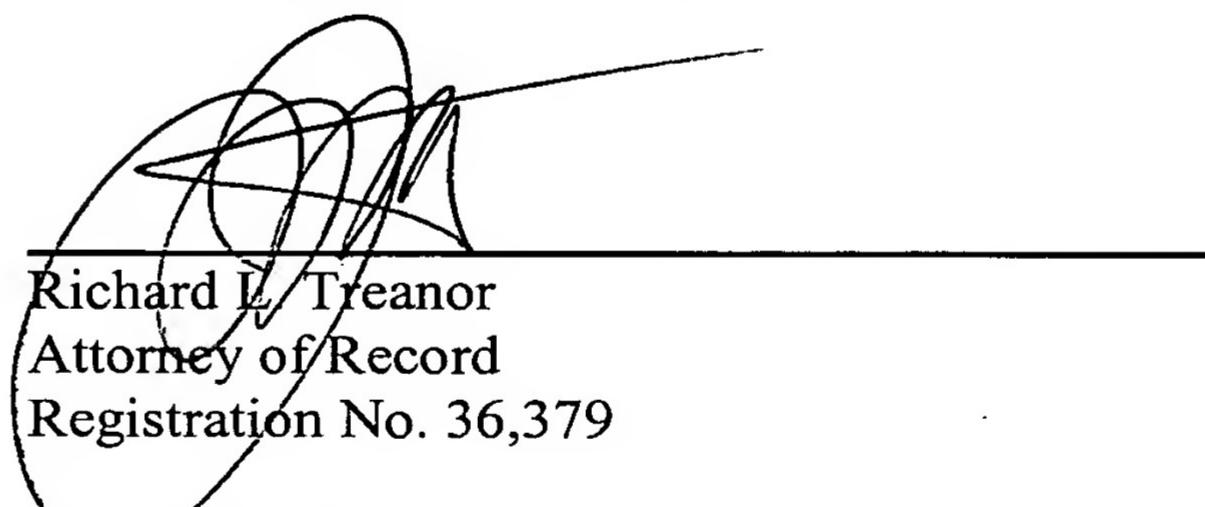
Clearly, the disclosed polymers are different from the claimed polymers: the disclosed polymers differ from the claimed polymers both structurally (they do not contain an "R" group like the claimed polymers and they do not contain the specified alkoxylation groups/polyalkylation) and functionally (they do not possess emulsifying activity). No teaching, suggestion or motivation exists to fundamentally change the structure and function of the disclosed polymers in such a way to yield the claimed polymers.

In view of the above, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 as well as the double patenting rejections.

Applicants believe that the present application is in condition for allowance. Prompt and favorable consideration is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Richard L. Treanor
Attorney of Record
Registration No. 36,379



Jeffrey B. McIntyre
Registration No. 36,867

Customer Number

22850

Tel.: (703) 413-3000
Fax: (703) 413-2220